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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,633	01/29/2004	Richard S. Smith	59503US002	5407
32692 7590 09/14/2007 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			EXAMINER MARCHESCHI, MICHAEL A	
			ART UNIT 1755	PAPER NUMBER
			NOTIFICATION DATE 09/14/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No. 10/767,633	Applicant(s) SMITH ET AL.	
	Examiner Michael A. Marcheschi	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1755

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-11, 15 and 17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “non cyclic volatile siloxanes” in the proviso, does not reasonably provide enablement for “non cyclic siloxanes” (both occurrences) as defined in the proviso of claims 1 and 15. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The claims define “non cyclic siloxanes” in the proviso of independent claims 1 and 15. This encompasses any “non cyclic siloxanes” that have the claimed viscosity. However, the specification only teaches the use of “non cyclic volatile siloxanes” in the proviso. Such a limited disclosure does not support the breadth of the instant claims. The examiner suggests the incorporation of “volatile” to describe the siloxanes in the proviso.

Claims 1-5, 7-11, 15 and 17 are rejected under 35 U.S.C. 103(a) as obvious Garabedian et al. (406).

Garabedian et al. teaches in sections [0054]-[0055], [0084]-[0086], [0090], [0099], [0111]-[0112], [0139]-[0142], [0157]-[0158] and [0202-0203], a composition comprising, in

Art Unit: 1755

weight percent (1) 0-10% of an emulsifier (surfactant), (2) 0.001-30% of a mixture of a solvent (i.e. mixture of a volatile silicone (octamethylcyclotetrasiloxane) and volatile hydrocarbon), (3) a thickener, (4) 0.01-1% oxide nanoparticles (i.e. this encompasses aluminum oxide (this is an abrasive) because it is within the scope of the definition of nanoparticles (i.e. oxides)), (5) 0.01-0.5% pine oil, (6) about 1% of a GRAS material, such as silicon dioxide (which is an abrasive) and (7) 5-70% water. Other Gras materials include oleic acid and glycerin. No “non-volatile silicone material” needs to be present.

Garabedian et al. teaches a composition which comprises all of the claimed components. With respect to the boiling point of the volatile siloxane, since the material is the same it inherently has the same boiling point. It is the examiners position that the hydrocarbonoxy end-blocked branched organopolysiloxanes, which are fluid, are volatile absent evidence and since applicants do not define the extent of non-volatility. In addition, since the reference uses the same volatile siloxanes they are expected to have the same boiling point. With respect to the amount of abrasive, the reference teaches that the composition includes 1 percent by weight oxide nanoparticles (i.e. this encompasses aluminum oxide (this is an abrasive) because it is within the scope of the definition of nanoparticles (i.e. oxides)) and about 1 percent by weight of a GRAS material, such as silicon dioxide (which is an abrasive). Since both oxide nanoparticles and silica are abrasives, the total content of abrasive is about 2%, thus reading on the claimed limitation of 3 weight percent because the reference uses “about” to define the amount, and as is well known, “about” permits some tolerance. *In re Ayers*, 154 F 2d 182, 69 USPQ 109.

With respect to the amounts defined in instant claim 9, the reference teaches amounts which encompass the claimed amounts and therefore the subject matter as a whole would have

Art Unit: 1755

been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976).

With respect to the amounts defined in claims 10-11, all of the claimed amounts are defined by the reference, with the exception of the claimed amount of lubricant (pine oil). However, this amount would have been obvious because the claimed invention uses “about” to define the amount, and as is well known, “about” permits some tolerance. *In re Ayers*, 154 F 2d 182, 69 USPQ 109.

With respect to claim 15, the reference teaches a composition which is made by mixing all of the components together and although the process might not be in two separate stages (the emulsification step and the mixing (combining with abrasives)), no distinction is seen to exist because the change in sequence of adding ingredients would have been obvious to one of ordinary skill in the art absent evidence to the contrary. *In re Gibson* 5 USPQ 230. In addition, it is the examiners position that the initial formation of an emulsion would have been obvious to the skilled artisan in order to maximize the homogeneity of the water and siloxane prior to the addition of the abrasive.

Finally, it is prima facie obvious to combine two or more materials (two or more GRAS materials) disclosed by the prior art to form a third material (combination of GRAS materials) that is to be used for the same purpose. *In re Kerkhoven* 205 USPQ 1069.

Claims 1-4, 6-13 and 17 are rejected under 35 U.S.C. 103(a) as obvious over John (692) in view of Hawley's Condensed Chemical Dictionary, Twelfth Edition, pages 918-919.

John teaches in column 2, line 5-column 4, line 11, a composition comprising, in weight percent (1) 1-15% of an emulsifier (surfactant), (2) 0.5-10% of a mixture of an organosiloxane components (can contain octamethylcyclotetrasiloxane), (3) 0.1-5% of a thickener, (4) 5-70% of an abrasive (size of 1-400 microns and/or can be finely divided alumina) and (5) 10-60% of a water medium. Other components can be added, such as a disinfectant and fragrance, etc. Although this reference teaches a polydiorganosiloxane, (1) it is the examiners position that this can be a volatile material absent evidence to the contrary, thus no "non-volatile silicone material" needs to be present.

Hawley's Condensed Chemical Dictionary, Twelfth Edition teaches on pages 918-919 that pine oil is known to be used as disinfectant and fragrance, at least.

The primary reference teaches a composition which comprises all of the claimed components with the exception of the claimed lubricant (pine oil). The use of this component in the composition of the primary reference would have been obvious because said reference teaches that the composition can contain a disinfectant and perfume (reads on a fragrance) and it is the examiners position that pine oil is within the scope of this additive because Hawley's Condensed Chemical Dictionary teaches that this material is known for these uses. It is the examiners position that this function is irrespective of the siloxane being volatile or non-volatile absent clear evidence to the contrary.

With respect to the amount of pine oil, as recited in claims 9-11, John teaches that this component can be used (as a disinfectant or perfume for the reasons defined above) and it is the

Art Unit: 1755

examiners position that the amount of this component would have been obvious through routine experimentation and optimization to produce to most optimized emulsion with the desired disinfecting properties and/or scent. The amounts of the other components are clearly disclosed by John.

Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as obvious over John (692) in view of Hawley's Condensed Chemical Dictionary, Twelfth Edition, pages 918-919, as applied to claim 1 above and further in view of Martin et al. (027).

The teachings of Martin are set forth in the previous office action which are incorporated herein by reference.

With respect to the solvent of claim 5, although John (692) in view of Hawley's Condensed Chemical Dictionary does not teach the inclusion of this component (solvent), it is the examiners position that said component would have been obvious because polishing (i.e. scouring) compositions are known to contain a hydrocarbon solvent/water mixture as the medium in which the components are dispersed (see Martin). In view of this, the use of any known scouring medium as the medium according to the teachings of John (692) in view of Hawley's Condensed Chemical Dictionary, Twelfth Edition, pages 918-919, would have been well within the scope of the skilled artisan.

With respect to the amounts defined in claim 14, as defined in the above rejection and by John, the amounts of all the components, except the hydrocarbon solvent, are defined (see the amounts disclosed by John and the obviousness determination of the amount for the pine oil component defined above). The amount of hydrocarbon solvent would have been obvious

because Martin teaches a conventional amount for this component when used in scouring composition and since its use in the composition according to John is obvious for the above reasons, one skilled in the art would have appreciated that the amount can also be within the scope of the amount defined by Martin.

Claim 15 is rejected under 35 U.S.C. 103(a) as obvious over John (692) in view of Hawley's Condensed Chemical Dictionary, Twelfth Edition, pages 918-919,

The combined reference teaches a composition (see above) which is made by mixing all of the components together and although the process might not be in two separate stages (the emulsification step and the mixing (combining with abrasives)), no distinction is seen to exist because the change in sequence of adding ingredients would have been obvious to one of ordinary skill in the art absent evidence to the contrary. *In re Gibson* 5 USPQ 230. In addition, it is the examiners position that the initial formation of an emulsion would have been obvious to the skilled artisan in order to maximize the homogeneity of the water and siloxane prior to the addition of the abrasive.

Applicant's arguments filed 2/12/07 have been fully considered but they are not persuasive.

Applicants agree that Garabedian does not include (1) particles for any abrasive function and (2) that nanoparticles are too small to function as an abrasive. With respect to (1) above, the function taught by the reference for the material is immaterial because the reference still contains oxide particles (i.e. these are abrasives). As defined above, the reference teaches a mixture of



Art Unit: 1755

nanoparticles and silica and since these are both within the scope of abrasive particles, the total amount reads on the claimed amount. With respect to (2) above, this is not persuasive because nanoparticles will function as an abrasive. To support the examiners position, reference is directed to section [0059] of Dutta (816), which has been submitted on the attached 892. As defined in the above rejection, the reference teaches a composition which comprises all of the claimed components, irrespective of what the composition is used as or called. Patentability of a composition is based on the combination of individual components and not one what the composition is used as or called.

With respect to John, applicants argue that the claims now require no non volatile silicone, thus since John teaches that a polydiorganosiloxane is present, it does not meet the claims, as amended. This is not persuasive because it is the examiners position that this can be a volatile material to an extent absent evidence to the contrary and since applicants do not define the extent of non-volatility. In view of this, it is the examiners position that no "non-volatile silicone material" needs to be present. Applicants have not shown any clear evidence to the contrary.

Applicants also argue the polydiorganosiloxanes described in John, as apparently not meeting the claimed definition of volatile silicone (boiling point less than 250 degrees C). This is not persuasive because, as defined above, it is the examiners position that these are still volatile silicones and applicants have not shown evidence to the contrary. In addition, applicants use "comprising" which opens the claims to additional components (i.e. other volatile silicone materials). Finally, applicants argue the examples of this reference but it is well established that

Art Unit: 1755

a reference can be used for all it realistically teaches and is not limited to the disclosure in its examples.

With respect to the rejection that uses the John and Martin references, applicants do not argue the examiners obviousness reasons.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

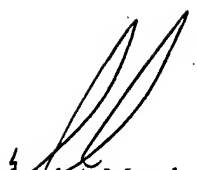
Application/Control Number: 10/767,633

Art Unit: 1755

Page 10

9/07

MM



Michael A Marcheschi  
Primary Examiner  
Art Unit 1755